

### AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1.-14. (Cancelled)

15. (Currently Amended) A system comprising:

an apparatus including a storage medium having code segments stored thereon, the code segments being operable to cause the apparatus to execute components comprising:

a process modeling tool operable to create a workflow process model, the process model including a configurable task set that includes tasks and constraints that define relationships between the tasks, each constraint corresponding to a constraint type of a plurality of constraint types;

a constraints validation engine operable to:

simplify a specification of the constraints for each constraint based on resolving intra-constraint conflicts for each constraint type to provide a minimal specification for each constraint of the constraint type, simplifying the specification of the constraints being based on a redundancy or a transitivity within the constraint type;  
resolve inter-constraint conflicts between the constraint types; and

validate the tasks and the constraints such that each of the tasks are includable in at least one task subset without violating any of the constraints in each of the simplified specification minimal specifications of the constraints; and

a workflow engine operable to copy the process model to thereby create an open instance, and further operable to activate the configurable task set during execution of the open instance, and to thereby compile and execute an instance template including a selected task subset of the tasks.

16. (Original) The system of claim 15 wherein the constraints validation engine is further operable to validate the instance template for conformance with the constraints.
17. (Original) The system of claim 15 wherein the workflow engine is operable to activate the configurable task set by outputting the tasks for display to a user, and is further operable to accept the selected task subset from the user.
18. (Previously Presented) The system of claim 17 wherein the workflow engine is operable to accept the selected task subset from the user by outputting a revised task set for display to the user after accepting a selected task by the user.
19. (Cancelled)
20. (Original) The system of claim 15 wherein the constraints include a structural constraint that imposes a restriction on how tasks are included within the instance template.
21. (Original) The system of claim 15 wherein the constraints include a containment constraint that specifies conditions under which tasks are included within the instance template.
22. – 24. (Cancelled)
25. (Original) The system of claim 15 wherein the process model includes a pre-configured workflow portion having pre-defined tasks and task relationships, in addition to the configurable task set.
26. (Original) The system of claim 15 further comprising a worklist manager operable to communicate with the workflow engine and thereby disseminate task information related to the instance template to workitem performers.

27.-30. (Canceled)

31. (Currently Amended) A method of compiling and executing an instance template, comprising:

storing a configurable task set in a computer readable storage medium, the configurable task set including tasks and constraints that define relationships between the tasks, each constraint corresponding to a constraint type of a plurality of constraint types;

reading the configurable task set from the computer readable storage medium;

creating a workflow process model, the process model including the configurable task set;

simplifying a specification of the constraints for each constraint based on resolving intra-constraint conflicts for each constraint type to provide a minimal specification for each constraint of the constraint type, simplifying the specification of the constraints being based on a redundancy or a transitivity within the constraint type;

resolving inter-constraint conflicts between the constraint types;

validating the tasks and the constraints such that each of the tasks are includable in at least one task subset without violating any of the constraints in each of the simplified specification minimal specifications of the constraints;

copying the process model to thereby create an open instance; and

activating the configurable task set during execution of the open instance to thereby compile and execute an instance template including a selected task subset of the task.

32. (Previously Presented) The method of claim 31 further comprising validating the instance template for conformance with the constraints.

33. (Previously Presented) The method of claim 31 further comprising:

activating the configurable task set by outputting the tasks for display to a user; and

accepting the selected task subset from the user.

34. (Previously Presented) The method of claim 33 further comprising accepting the selected task subset from the user by outputting a revised task set for display to the user after accepting a selected task by the user.

35. (Cancelled)

36. (Previously Presented) The method of claim 31 wherein the constraints include a structural constraint that imposes a restriction on how tasks are included within the instance template.

37. (Previously Presented) The method of claim 31 wherein the constraints include a containment constraint that specifies conditions under which tasks are included within the instance template.

38. (Cancelled)

39. (Previously Presented) The method of claim 31 further comprising providing a pre-configured workflow portion having pre-defined tasks and task relationships, in addition to the configurable task set.

40. (Previously Presented) The method of claim 31 further comprising disseminating task information related to the instance template to workitem performers.

41. (Currently Amended) A computer program product tangibly stored on a computer readable medium, the computer program product being operable to cause a data processing apparatus to perform operations comprising:

creating a workflow process model, the process model including a configurable task set that includes tasks and constraints that define relationships between the tasks, each constraint corresponding to a constraint type of a plurality of constraint types;

simplifying a specification of the constraints for each constraint based on resolving intra-constraint conflicts for each constraint type to provide a minimal specification for each constraint of the constraint type, simplifying the specification of the constraints being based on a redundancy or a transitivity within the constraint type;

resolving inter-constraint conflicts between the constraint types;

validating the tasks and the constraints such that each of the tasks are includable in at least one task subset without violating any of the constraints in each of the simplified specification minimal specifications of the constraints;

copying the process model to thereby create an open instance; and

activating the configurable task set during execution of the open instance to thereby compile and execute an instance template including a selected task subset of the tasks.

42. (Previously Presented) The product of claim 41 validating the instance template for conformance with the constraints.

43. (Previously Presented) The product of claim 41 further comprising activating the configurable task set by outputting the tasks for display to a user, and accepting the selected task subset from the user.

44. (Previously Presented) The product of claim 41 wherein the constraints include a structural constraint that imposes a restriction on how tasks are included within the instance template.

45. (Previously Presented) The product of claim 41 wherein the constraints include a containment constraint that specifies conditions under which tasks are included within the instance template.

46. (Cancelled)

47. (Previously Presented) The product of claim 41 further comprising providing a pre-configured workflow portion having pre-defined tasks and task relationships, in addition to the configurable task set.

48. (Previously Presented) The product of claim 41 further comprising disseminating task information related to the instance template to workitem performers.

49. (New) The system of claim 15 wherein the constraints include at least one of an inclusion constraint and an exclusion constraint, the inclusion constraint identifying a dependency between task subsets such that the inclusion of a particular task subset within the workflow requires the inclusion of another particular task subset within the workflow, the exclusion constraint identifying a dependency between task subsets such that the inclusion of a particular task subset within the a workflow requires the exclusion of another particular task subset within the workflow.

50. (New) The system of claim 15 wherein the constraints include at least one of a minimum constraint and a maximum constraint, the minimum constraint imposing a minimum number of task subsets that must be included in a workflow, the maximum constraint imposing a maximum number of task subsets that can be included in the workflow.

51. (New) The method of claim 31 wherein the constraints include at least one of an inclusion constraint and an exclusion constraint, the inclusion constraint identifying a

dependency between task subsets such that the inclusion of a particular task subset within the workflow requires the inclusion of another particular task subset within the workflow, the exclusion constraint identifying a dependency between task subsets such that the inclusion of a particular task subset within the a workflow requires the exclusion of another particular task subset within the workflow.

52. (New) The method of claim 31 wherein the constraints include at least one of a minimum constraint and a maximum constraint, the minimum constraint imposing a minimum number of task subsets that must be included in a workflow, the maximum constraint imposing a maximum number of task subsets that can be included in the workflow.

53. (New) The product of claim 41 wherein the constraints include at least one of an inclusion constraint and an exclusion constraint, the inclusion constraint identifying a dependency between task subsets such that the inclusion of a particular task subset within the workflow requires the inclusion of another particular task subset within the workflow, the exclusion constraint identifying a dependency between task subsets such that the inclusion of a particular task subset within the a workflow requires the exclusion of another particular task subset within the workflow.

54. (New) The product of claim 41 wherein the constraints include at least one of a minimum constraint and a maximum constraint, the minimum constraint imposing a minimum number of task subsets that must be included in a workflow, the maximum constraint imposing a maximum number of task subsets that can be included in the workflow.